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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,075	03/24/2004	Aaron D. Bachelder	53860/RAG/C766	8089
23363	7590	06/15/2006	EXAMINER	
CHRISTIE, PARKER & HALE, LLP			NGUYEN, PHUNG	
PO BOX 7068			ART UNIT	PAPER NUMBER
PASADENA, CA 91109-7068			2612	

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/811,075

Applicant(s)

BACHELDER ET AL.

Examiner

Phung T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) \_\_\_\_\_ is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-6,9-11,37-44,48-50,53 and 55 is/are rejected.  
7) ☒ Claim(s) 7,8,12-36,45,46,51,52,54,56 and 57 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 03/28/06  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 6, 9-11, 37, 38, 42-44, 48-50, 53, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross et al. (U.S. Pat. 6,326,903) in view of McConnell et al. (U.S. Pat. 5,710,555).

**Regarding claim 1:** Gross et al. disclose emergency vehicle traffic signal pre-emption and collision avoidance system which comprises all the claim subject matter as follows:

intersection control hardware at each intersection for preemption and control of traffic signals (fig. 1, col. 3, lines 64-66);

an emergency vehicle transponder for gathering navigation data to predict heading and position of said emergency vehicle (col. 7, lines 12-16)

a communications and operations network for connecting said intersection control hardware at each intersection with said emergency vehicle transponder in each emergency vehicle to collect and transmit real-time data regarding intersection status, emergency vehicle direction and location and activation of said display at each intersection (col. 9, lines 16-26);

whereby said emergency vehicle traffic signal control system controls preemption of traffic signals at selected intersection autonomously by transmissions to and from said

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emergency vehicle and said intersections (col. 3, lines 66-67, and col. 4, lines 1-4). Gross et al. disclose a traffic light controller receiving inputs from said communications controller to control the operation of traffic lights (col. 3, lines 66-67, and col. 4, lines 1-5) a warning display at each intersection alerting pedestrians of approaching emergency vehicle as claimed. However, McConnell et al. disclose siren detector comprising preempt control means to control the operation of pedestrian lights (col. 3, lines 16-20). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of McConnell et al. in the system of Gross et al. so that the intersection communication controller not only controlling the operation of traffic lights but also controlling the pedestrian lights which is an advantage.

**Regarding claim 2:** Gross et al. disclose the intersection control hardware includes an intersection monitor module at each intersection providing real-time monitoring of the status of each intersection (col. 4, lines 9-19).

**Regarding claim 3:** Gross et al. disclose the intersection monitor provides real-time monitoring of timing, phasing used for ETA calculations (col. 4, lines 49-57).

**Regarding claim 6:** Gross et al. disclose the intersection control module providing ETA timing for preemption of traffic signals from emergency vehicle positions and local mapping topography (col. 4, lines 49-57).

**Regarding claim 9:** Gross et al. disclose the communications and operations network includes slave transceivers in each emergency vehicle to relay core preemption status and configuration data to a backbone network (col. 3, lines 13-15).

**Regarding claim 10:** Gross et al. disclose the backbone network routes data between mobile wireless emergency vehicles, isolated wireless intersections and a central operations center (col. 3, lines 1-15).

**Regarding claim 11:** Gross et al. disclose the communications and operation network includes a program for processing and displaying all real-time data generated by the intersections and emergency vehicles generated by the intersections and emergency vehicles (col. 3, lines 66-67, and col. 4, lines 1-4).

**Regarding claim 37:** All the claimed subject matter is already discussed in respect to claim 1 above.

**Regarding claim 38:** Gross et al. disclose collecting critical data about said emergency vehicle in an on-board diagnostic circuit; processing said critical data in a vehicle digital control module; transmitting said emergency vehicle critical data to said transceiver at said intersection (col. 3, lines 18-33).

**Regarding claim 42:** Gross et al. disclose displaying information about the status of an intersection in the emergency vehicle comprising activating one of a plurality of colored LEDs (col. 10, lines 1-18).

**Regarding claim 43:** Gross et al. disclose activating a red LED to indicate a conflict with another emergency vehicle approaching an intersection; activating a yellow LED to indicate said intersection is preempted or activating a green LED to indicate preemption of said intersection is detected (col. 9, lines 66-67, and col. 10, lines 1-18).

**Regarding claim 44:** Gross et al. disclose providing ingress and egress navigation data to said emergency vehicles from Global Positioning System (GPS) data (col. 11, lines 14-15).

**Regarding claims 48 and 49:** Gross et al. disclose preempting said traffic light to optimize disruption of normal traffic flow and time-to-clear said intersection (col. 4, lines 38-57).

**Regarding claim 50:** Gross et al. disclose the warning displays indirectly activated by data from a GPS (col. 7, lines 12-15).

**Regarding claim 53:** Gross et al. inherently disclose the central operation center is a traffic control center (col. 3, lines 1-15).

**Regarding claim 55:** Refer to claim 38 above.

3. Claims 4, 5, and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross et al. in view of McConnell et al. and further in view of Smith et al. (U.S. Pat. 4,775,865).

**Regarding claim 4:** Gross et al. and McConnell do not teach the warning alert control module at each intersection for activation of said warning displays at each intersection. However, Smith et al. disclose emergency vehicle warning and traffic control system comprising display 20 which locates at each corner of an intersection to indicate the direction of the emergency vehicle approaching the intersection (fig. 1, col. 3, lines 39-48, and col. 5, lines 12-20). Therefore, it would have been obvious to the skilled artisan to utilize the teaching of Smith et al. in the system of the combination so that pedestrian at the intersection can be alert and move out the path of emergency vehicles.

**Regarding claim 5:** Smith et al. disclose the warning alert control module at each intersection activates both visual and audio alerts (col. 5, lines 66-67, and col. 6, lines 1-2).

**Regarding claim 39:** Refer to claim 5 above.

**Regarding claim 40:** Refer to claim 5 above.

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**Regarding claim 41:** Smith et al. disclose transmitting the audio signal to a loudspeaker at each corner of the intersection (col. 3, lines 48-51).

***Allowable Subject Matter***

4. Claims 7, 8, 12-36, 45, 46, 51, 52, 54, 56, and 57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phung T Nguyen whose telephone number is 571-272-2968. The examiner can normally be reached on 8:00am-5:30pm Mon thru. Friday, with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on 571-272-2964. The fax numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

Phung Nguyen



Date: June 5, 2006